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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,351	07/09/2001	Beth C. Monahan	SP00-209P	5348

7590 10/03/2003
Tom Beall, Esq.
Corning Incorporated
SP-TI-03-1
Corning, NY 14831

EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 10/03/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/901,351

Applicant(s)

MONAHAN ET AL.

Examin r

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-12, 14-19, 21-25 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13, 20 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 09 July 2001 has been considered and made of record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-5, 8-12, 14-17, 23-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Turner et al. (US 6,340,589) or Elsener et al. (US 6,555,792) in view of Ealer (US 5,149,484) and Louks (US 5,006,368).

With respect to claims 1, 11 and 23, both of the references of Turner et al. and Elsener et al. disclose microplate devices and methods of use for performing PCR in the microplate devices wherein the devices are used in combination with thermocycling devices. The microplates are disclosed as being manufactured of polypropylene (See column 3, line 33, and column 11, lines 19-32, of Turner et al. and column 2, lines 44-51, of Elsener et al.).

The instant claims differ by reciting that the thermoplastic (polypropylene) used to make the microplate has been mixed with a non-toxic surface active material to enhance a lubricious property of the a surface of the device.

The reference of Ealer discloses that it is known in the art when manufacturing (injection molding) a thermoplastic device to mix in additives to the thermoplastic, including lubricants (See column 2, lines 48-59).

The reference of Louks discloses that known lubricants include stearyl alcohol (See column 6, lines 19-29).

In view of these teachings, it would have been obvious to one of ordinary skill in the art to provide the thermoplastic material (polypropylene) of the primary reference with a lubricant

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as suggested by the secondary references of record for the known and expected result of reducing the tendency of the polymer to adhere processing equipment (See column 6, lines 10-18).

With respect to claims 2, 3 and 24, as a result of the combination recited above, the frame would inherently be capable of being easily removed from a thermocycler or molding machine.

With respect to claims 4, 5, 8, 9, 12, 15, 19, 21, 25 and 28 since the reference of Louks suggests the use of a stearyl alcohol as the surfactant, the limitations of claims 4, 5 and 8 would be met since the stearyl alcohol would meet these claim limitations as is required in the instant specification.

With respect to claims 10, 16, 22 and 29, the references disclose the use of polypropylene as a material for the microplate.

With respect to claims 14 and 27, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum amount of lubricant to employ while maintaining the efficiency of the microplate device in terms of its intended use.

With respect to claim 17, both the primary references disclose that the microplates are intended to be employed with robotic devices (See column 2, lines 48-50, of Elsener et al. and column 2, lines 8-49, of Turner et al.).

With respect to claim 18, the reference of Louks discloses the steps of manufacturing a pelletized melt blend that includes the lubricant (See column 8, line 3-39). The reference also discloses melting the pellets to form the final product (See column 8, lines 40-43).

As a result, it would have been obvious to one of ordinary skill in the art to injection mold the microplates of the modified primary reference using the pelletizing process disclosed

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by the reference of Louks for the known and expected result of improving the processing conditions discussed by the reference of Louks (See column 1, lines 53-58).

Allowable Subject Matter

6. Claims 6, 7, 13, 20 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

While the prior art of record suggests mixing surfactants (stearyl alcohol) with thermoplastic material for manufacture of microplate devices, the prior art of record fails to teach or fairly suggest that a polyoxyethylene fatty ether is a surfactant known in the art as a thermoplastic lubricant.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

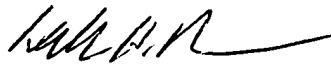
The reference of Suzuki et al.(US 6,130,279) is cited as a prior art reference that pertains to injection molding a microplate device.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 703-308-4006. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:40am to 4:10pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 703-308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



William H. Beisner
Primary Examiner
Art Unit 1744

WHB